

JOURNAL
OF
SOUTH AFRICAN BOTANY
VOL. XII,

PLANTAE NOVAE AFRICANAE.

"Ex Africa semper aliquid novi."—*Pliny*.

SERIES XXVI.

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R.N. (Ret.).

Amphithalea Fourcadei Compton. (Leguminosae-Liparieae.)

Fruticulosus ramosus, dense foliatus, omnino (præter corollam) dense appresse argenteo-pubescent. *Ramuli* angusti, cicatricibus prominentibus. *Folia* erecta vel expansa, simplicia, integra, elliptica, sessilia, acuta, mesonevro infra prominente, marginibus parum incrassatis. *Flores* singuli, axillares, sessiles, foliis occulti. *Calyx* subaequaliter semi-lobatus. *Petala* purpurea, longe unguiculata, glabra. *Ovarium* 1—2-ovulatum. *Fructus* dehiscent, semine uno.

Hab. Cape Province. Humansdorp Division: Witte Els Berg, along eastern spur, 3,000 ft., Dec., 1925, *Fourcade* 3208; Kareedouw Pass, 1,700 ft., June, 1927, *Fourcade* 3242; Kareedouw Peak 2,000 ft., 21 Dec., 1933, *Compton* 4556 (*Type*, in Herb. Nat. Bot. Gardens); Witte Els Bosch Peak, S.W. slopes, 16 Nov. 1941, *Esterhuysen* 6766. Uniondale Division: Formosa Peak, Jan. 1940, *Stokoe* 7392; Helpmekaar Peak, 4,000 ft., 28 Jan., 1941, *Compton* 10449, *Esterhuysen* 4597. Knysna Division: Concordia, 700 ft., *Keet* 914. George Division: Montagu Pass, 1,500 ft., 2 Nov., 1894, *Schlechter* 5793.

A small much-branched densely leafy shrub. *Branches*, *leaves*, *calyx* and *ovary* covered with a dense appressed silvery pubescence. Branches slender, the leaf-scars prominent. *Leaves* erect to spreading,

entire, elliptical, sessile, acute, the midrib prominent below, 6–9 mm. long, 4–5 mm. wide, flat or somewhat inflexed, the margins slightly thickened. Flowers axillary, sessile, solitary, concealed among the leaves. Calyx 4 mm. long, sub-equally lobed about half-way down, the ventral lobe slightly the longest, the two dorsal lobes joined a little higher than the others: lobes narrow, attenuate, pubescent inside as well as outside. Vexillum light purple, claw 2 mm. long, limb quadrate-orbicular, 4 mm. long and wide, emarginate, with short incurved auricles, the sides somewhat reflexed. Alae dark purple, claw slender, 2 mm.

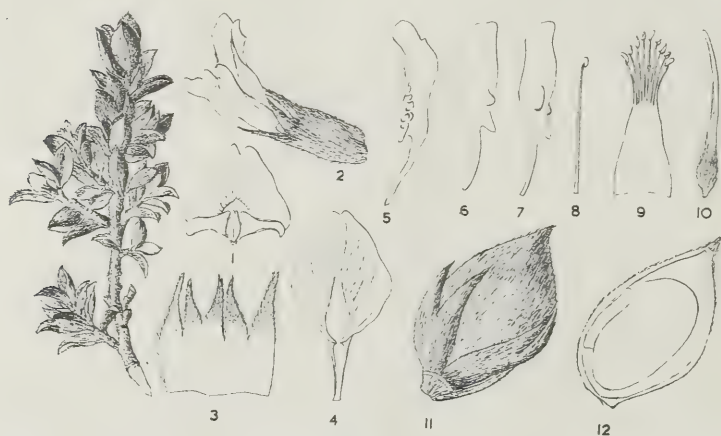


FIG. 1. *Amphithalea Fourcadei*. Portion of plant, nat. size. 1. Flower, front view. 2. Flower, side view. 3. Calyx, laid out, seen from within. 4. Vexillum. 5. Alae, from within. 6. Carina, from outside. 7. Carina, from within. 8. Old stamen. 9. Stamens. 10. Gynaecium. 11. Legume and calyx. 12. Legume, sagittal section. All $\times 5$. (Compton 4556.) Del. W. F. Barker.

long, limb 3 mm. long. Carina dark purple, claws 2 mm. long, limbs 3 mm. long. Ovary 1–2-ovulate. Fruit 1-seeded, dehiscent, 6 mm. long.

This new *Amphithalea* has been collected on several occasions and has been variously placed in herbaria as *A. imbricata* (L) Druce (= *A. densa* E. & Z.), *A. violacea* Benth. and *A. phyllicoides* E. & Z. It is, however, well distinguished by its growth and leaf characters from all these species, and it occupies a distinct area along the Tsitsikamma Mountains from the Montagu Pass eastwards to the Kareedouw Pass. I am indebted to Dr. H. G. Fourcade for assistance in connexion with this plant, which I name in his honour.

Erica extrusa Compton. (Ericaceae-Ericoideae.) § Hermes.

Fruticulus humilis ramosus. *Ramuli* divaricati, ascendentes, minute puberuli. *Folia* 3-nata, erecta, non appressa, parum incurvata, linearia, sulcata, apiculata, glabra. *Flores* terminales et axillares ad apicem ramulorum. *Pedicelli* angusti, elongati, minute puberuli. *Bracteae*



FIG. 2. *Erica extrusa*. 1. Portion of plant, nat. size. 2. Whorl of leaves $\times 5$. 3. Leaf from below $\times 5$. 4. Leaf, side view $\times 5$. 5. Flower $\times 10$. 6. Corolla $\times 10$. 7. Bracts $\times 10$. 8. Sepal $\times 10$. 9. Anther, back view $\times 20$. 10. Anther, front view $\times 20$. 11. Stamen, side view $\times 10$. 12. Gynaecium $\times 10$. (Compton 16817.) Del. W. F. Barker.

remotae, anguste lineares. *Sepala* ad corollam firme appressa, rigida, sulcata, apiculata, marginibus minute glandulosis. *Corolla* glabra, rosea, urceolata, quadrangula, angulis inter sepala extrusis, segmentis erectis, ovatis, obtusis, denticulatis, tubo subaequalibus. *Filamenta* tenuia. *Antherae* inclusae, brunneae, late cristatae. *Ovarium* glabrum. *Stylus* angustus, stigmate exserto, capitellato.

Hab. Cape Province. Caledon Division; Palmiet River, Elgin' Dec., 1941, *Stokoe* 7957; Palmiet River Valley, Grabouw, Jan., 1943, *Stokoe* 8577; East foot of Kogelberg, 16 Jan., 1944, *Esterhuysen* 9995; Aries Kraal, 18 Nov., 1944, *Barker* 3354, *Compton* 16508; 30 Dec., 1944, *Compton* 16817 (*Type*, in Herb. Nat. Bot. Gardens).

A small much-branched bushy shrublet, usually less than 20 cm. high. *Branches* divaricate, ascending, minutely puberulous. *Leaves* 3-nate, erect, not appressed to stem, a little longer than the internodes, linear, slightly incurved, 4—8 mm. long, 1.0—1.5 mm. wide, apiculate, sulcate, glabrous. *Flowers* terminal and axillary towards the end of the branches. *Pedicels, bracts and sepals* red. *Pedicels* 4—6 mm. long, slender, minutely puberulous. *Bracts* narrow-linear, minutely denticulate, scattered $\frac{1}{2}$ to $\frac{3}{4}$ along pedicel, 1.5—2.0 mm. long. *Sepals* narrow, closely appressed to corolla, 2.5 mm. long, rigid, apiculate, sulcate, with minutely glandular margins. *Corolla* urceolate, glabrous, pink, 4 mm. long, 3 mm. diam., quadrangular, the angles expanded at the base into 4 gibbositities between the sepals, the segments erect, broadly ovate, obtuse, minutely toothed, about equalling the tube in length. *Filaments* slender, 2 mm. long. *Anthers* included, smooth, brown, 1 mm. long, with a pair of broad lobed basal crests, the pore $\frac{3}{4}$ the length of the cell. *Ovary* glabrous, broadly ovoid. *Style* 2.5 mm. long, slender. *Stigma* capitellate, exerted.

This small summer-flowering heath grows in local societies on coarse sand or quartzite gravel derived from the Table Mountain Sandstone hills of the Palmiet River valley below Grabouw. The basal almost saccate protrusions of the corolla between the sepals are distinctive and have suggested the specific name, and the glabrous ovary and cristate anthers assist in separating it from other species of the § *Hermes* (into which, as a matter of fact, it does not fit very well).

***Euryops breviloba* Compton.** (Compositae-Senecioneae.)

Frutex erectus, paullum ramosus, omnino glaber. *Rami* teretes, medullati. *Folia* viridia, erecto-patentia, pinnati-partita, lobis utrinque 4—7, oppositis vel sub-oppositis, divergentibus, inaequalibus, linearibus, supra canaliculatis, apiculatis. *Capitulum* solitarium, pedunculo longo, nudo, erecto, terminale. *Involucrum* labriforme, lobis c. 21, acuminatis. *Receptaculum* planum. *Flosculi* radii c. 21, ligulati; *flosculi disci* numerosi: omnes flavi. *Achaenia* glabra. *Pappi* setae serrulatae, caducae.

Hab. Cape Province. Ceres Division: Karoo Poort, 25 Aug. 1935, *Compton* 5425; 27 Sept., 1944, *Compton* 16069 (*Type*, in Herb. Nat. Bot. Gardens); 27 July, 1941, *Bond* 1191, *Esterhuysen* 5494; *Bolus*

2613 ; cult. at Kirstenbosch, 357/44 : Ceres Wild Flower Show, 30 Sept., 1928, *Hutchinson* 619. Clanwilliam Division : Matjesrivier, Cedarberg, Aug., 1943, *G.E.H. Wager* 112.

An erect little-branched shrub up to 100—150 cm. high, glabrous throughout, and with little or no surface deposit of resin. *Stems* terete, smooth, slightly decurrent-angled below edges of petiole, with a large pith. *Leaves* green, erecto-patent, 5—10 cm. long, once pinnatipartite, lobes 4—7 on each side, opposite or sub-opposite, spreading, the middle lobes the longest, up to 2 cm. long, usually shorter, rachis and lobes linear, c. 2 cm. wide, furrowed above, apiculate. *Capitula* solitary, terminal on an erect naked peduncle 10—18 cm. long. *Involucre* 12—18 mm. diam., flat-based with erect sides c. 5 mm. deep, bordered by c. 21 erect narrowly triangular lobes which are c. 4—5 mm. long, acuminate with puberulous margins and tips. *Receptacle* flat or slightly concave, honeycombed. *Ray-florets* c. 21, female, ligulate yellow, tube 4 mm. long, limb 30—40 mm. long, 5 mm. wide, oblanceolate, obtuse. *Disc-florets* numerous, hermaphrodite, tubular, yellow, 6 mm. long gradually tapering to base, lobes 1 mm. long. *Achenes* obovate with 5 longitudinal ridges, glabrous. *Pappus* of several white serrulate bristles, 2—3 mm. long, caducous.

A handsome plant, more erect than the well-known *Euryops Athanasiae* Less., and not so tall or straggling, and well distinguished therefrom by the much shorter lateral segments of its leaves. The leaves also distinguish it sharply from *E. Serra* DC. (with which it has been much confused in herbaria) which has narrow serratilobed leaves with many teeth on each side forwardly directed.

De Candolle's description of *E. Serra* reads "glaber, foliis elongatis sessilibus coriaceo-rigidis utrinque lobulis dentibusve grossis acutis distantibus utrinque 10—12 pectinato-serratis . . ." (Prod. VI, 444).

E. breviloba is a conspicuous plant just outside the debouchment of Karoo Poort on the Ceres-Calvinia Karoo, on quartzite rocks at the foot of the Zwartrug Mountains. It maintains its distinctive characters in cultivation.

E. Serra is a more widely distributed species, though apparently never very abundant : it occurs in localities with a much higher rainfall than *E. breviloba* (e.g. Tulbagh, *Drège* ; Roodesand Pass, Tulbagh side, *Stokoe*, 1 Aug., 1938 ; slopes of Great Winterhoek Mts., near Saron, Nov., 1941, *Stokoe* 8116 ; S. slopes of Mt. Lebanon, Houw Hoek, *Pillans* 2651).

Euryops Wageri Compton. (Compositae-Senecioneae.)

Frutex erectus, paullum ramosus, omnino glaber. *Folia* erecto-

patentia, pinnatipartita, lobis anguste linearibus, erecto-patentibus, subelongatis. *Capitulum* solitarium, pedunculo erecto, robusto, nudo, terminali. *Involucrum* labriforme, supra parum latiore, lobis c. 21,



FIG. 3. Leaves of *Euryops* spp., nat. size. A. *E. breviloba* (Compton 16069). B. *E. Wageneri* (Wagener 101). C. *E. Serra* (Pillans 2651). D. *E. Athanasiae*, rather smaller than the average. (Compton 9497.) Del. W. F. Barker.

attenuatis. *Flosculi* radii c. 21, ligulati, aurantiaci, speciosi: *flosculi disci* numerosi. *Pappi* setae parum plumosae, caducae.

Hab. Cape Province. Clanwilliam Division: Cedarberg, Aug. and Sept. 1943, G. E. Wagener 101 (*Type*, in Herb. Nat. Bot. Gardens): cult. at Kirstenbosch 354/43: Ezelbank, 4,000 ft., Schlechter 8836.

A tall, erect, little-branched shrub, glabrous throughout (except the

tips and margins of the involucre segments). *Leaves* relatively numerous and close-set, erecto-patent, once pinnatifid, 5—8 cm. long, lobes about 4—6 on each side, opposite or sub-opposite, erecto-patent, 1—3 cm. long, apiculate, rachis and lobes furrowed above, c. 1.5 mm. wide. *Peduncle* terminal, erect, stout, terete or finely striate, nude, up to 25 cm. long and 4 mm. diam. *Capitulum* solitary. *Involucre* flat-based or slightly intruse, up to about 15 mm. diam., broadening above to about 20 mm. diam., with about 21 erect teeth which are 7—8 mm. long with attenuate points which are puberulous tipped and margined. *Ray-florets* c. 21, female, orange-coloured, tube c. 4 mm. long, limb up to c. 42 mm. long, 10 mm. wide, oblong-lanceolate, obtuse, with a minute apiculus. *Disc-florets* numerous, hermaphrodite, tube 6.5 mm. long, lobes 1.5 mm. long. *Pappus* 2.5 mm. long, of straight or slightly flexuous bristles, slightly plumose, caducous.

This conspicuous shrub bears a general resemblance to *E. Athanasiae* Less. from which it differs in the smaller leaves with shorter segments, the relatively longer and stouter peduncles, the deeper involucre cup and longer segments, and the orange colour of the ray-florets which are distinctly wider and give the capitulum a more handsome appearance. I name it in honour of the late Mr. G. E. H. Wager, J.P., of Cedarberg, an enthusiastic observer of the plants of his district, whose death deprived the Kirstenbosch Herbarium of a valued contributor.

Euryops brevifolia and *E. Wageri* together with *E. Serra* DC. and *E. Athanasiae* Less. form a natural group of species: they are readily distinguished from one another by their leaves, typical examples of which are illustrated in Fig. 3.

Marasmodes undulata Compton. (Compositae-Anthemideae.)

Fruticulus diffusus, ramis divaricatis, rigidis, glabris, sparse glandulosis. *Folia* alterna, erecto-patentia, sessilia, linearia, glabra, glanduloso-punctata, mucrone parum reflexo. *Capitulum* solitarium, terminale, sessile. *Involucrum* obconicum; *bracteae* numerosae, multiseriatae, *exteriorae* foliaceae marginibus apicibusque scariosis, *interiores* anguste obcuneatae, fere totius scariosae, apicibus latioribus, obtusis, undulatis, sub-expansis. *Flosculi* c. 21. *Corolla* infra tubulosa, supra campanulata, parum glandulifera, lobis expansis. *Antherae* basi obtusae, parum exsertae. *Stylus* robustus. *Achaenia* glabra, in humiditate mucosa. *Pappi squamae* paucae, inaequales.

Hab. Cape Province. Paarl Division: gravelly flats north of Huguenot, 26 April, 1946, Compton 17987. (*Type*, in Herb. Nat. Bot. Gardens.)

A small diffuse shrub. *Branches* terete, slender, divaricate, rigid, glabrous, with a few scattered superficial glands. *Leaves* alternate,

sessile, erecto-patent when young, spreading when old, linear, slightly auricled at base, glabrous, glandular-punctate, with a short slightly reflexed apiculus, 4—6 mm. long, 1 mm. wide. *Capitula* solitary, terminal, sessile, 7—8 mm. long, 6—7 mm. diam. *Involucre* obconic, the bracts numerous, multiseriate, the outer ones foliose with a narrow

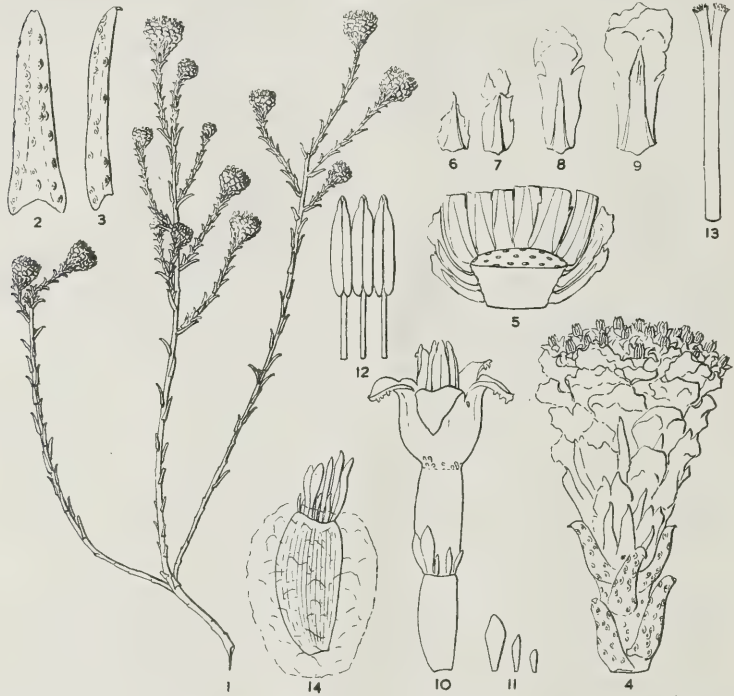


FIG. 4. *Marasmodes undulata*. 1. Portion of plant, nat. size. 2. Leaf from below $\times 5$. 3. Leaf, side view $\times 5$. 4. Capitulum $\times 5$. 5. Part of receptacle and bracts $\times 5$. 6—9. Bracts $\times 5$. 10. Floret $\times 10$. 11. Pappus scales $\times 10$. 12. 3 stamens $\times 10$. 13. Style and stigma $\times 10$. 14. Achene after boiling $\times 10$. (Compton 17987.) Del. W. F. Barker.

scarious margin and tip, grading to the innermost ones which are about 4 mm. long and 2 mm. wide, almost wholly scarious, narrowly obcuneate with a broader half-spreading obtuse undulate tip. *Receptacle* flat. *Florets* c. 21, glabrous, the tube cylindrical 1.5 mm. long, 0.8 mm. diam., the campanulate portion slightly glandiferous, 1.0 mm. long, the lobes spreading, ovate, yellow, 1.0 mm. long. *Ovary* 1.5 mm.

long, glabrous. *Pappus* of a few (6—10) unequal colourless scales, up to 0.8 mm. long. *Anthers* blunt at the base, shortly exserted. *Style* stout, lobes truncate, bristly at the tip.

An inconspicuous shrublet, distinguished from other species of *Marasmodes* by its rather larger solitary capitula with the innermost involucre bracts broadly scarious and undulate at their obtuse apices. The achenes have a surface coating of mucilage which swells up when wetted and becomes adhesive.

***Relhania latifolia* Compton.** (Compositae-Inuloideae.)

Frutex erectus, rigidus, aromaticus, omnino glaber. *Rami* teretes, foliis occulti. *Folia* numerosa, coriacea, erecto-patentia, orbiculari-obovata, integra, perobtusata sed apiculata, multipunctata, venis inconspicuis. *Capitula* c. 5—10, in umbella simplice terminali, partim foliis occulta, breve pedunculata, cylindrica, basi obconica. *Involucrum bracteae* multiseriatae, erectae, imbricatae, scariosae. *Paleae* angustae, acutae, transparentes. *Flosculi* radii c. 16, breviter ligulati, feminei; *flosculi disci* tubulares, hermaphroditi. *Achaenia* glabra. *Pappi squamae* paucae, parvae, acutae.

Hab. Cape Province. Clanwilliam Division: Het Kruis, 29 Sept., 1943; Compton 15016 (*Type*, in Herb. Nat. Bot. Gardens), Leighton 85.

An erect, rigid, aromatic shrub, glabrous in all parts. *Branches* arcuate-erect, terete, concealed by overlapping leaves when young, with distinct leaf-scars later. *Leaves* numerous, coriaceous, entire, erecto-patent, green, orbicular-obovate, obtuse but apiculate, the veins inconspicuous, glandular-multipunctate on both surfaces, the margin slightly thickened, very uniform in size on the same branch, c. 6—9 mm. long, 5—7 mm. wide. *Capitula* c. 5—10 in a simple terminal umbel, their peduncles and bases hidden by adjoining leaves. *Peduncles* 3—4 mm. long, erect, slender. *Involucre* cylindrical, obconic at base, 9—10 mm. long: bracts multiseriate, erect, imbricate, scarious, the innermost slightly diverging and more transparent, linear, 7 mm. long, 1 mm. wide. *Paleae* 6 mm. long, narrow, acute, transparent. *Florets* c. 16 ligulate and 36 tubular, yellow: *ray-florets* tubular except at the expanded tip, female, the tube 2.5 mm. long, the limb 2.5 mm. long, 1.0 mm. wide, the ovary 3.5 mm. long; *disc-florets* hermaphrodite, the ovary 3.5 mm. long, the corolla with a basal slender portion 3.0 mm. long, an upper wider portion 1.5 mm. long, and lobes 0.5 mm. long. *Ovaries* glabrous, slender. *Pappus* a cup of a few transparent pointed scales, 0.3 mm. long.

Relhania latifolia is related to *R. squarrosa* L'Hér., a widely distributed and "variable" species, and it might possibly be regarded as a

variety thereof. It is distinguished by its broad flat obtuse erectopatent (not squarrose) leaves, its slightly larger capitula, and the narrower upper portions of the tubes of the disc-florets and ligulate portions of the ray-florets. Certain Piquetberg gatherings may form a connecting link between it and *R. squarrosa*.

Metalasia langebergensis Salter. (Compositae-Senecioideae) § Eumetalasia.

Sectioni *Condensatae* accedit, atqui nulli speciei singulari prope affinis. *Squamae* involucales bi-seriatae admodum *M. quinqueflorae* DC., sed spathulatae et apice cuspidatae et roseo-tinctae, non valde acutae albaeque. *Fruticulus* robustior, rigidior. *Folia* congesta, fasciculata. *Capitula* satis numerosa, 5-flora. *Squamae* extimae sub-membranaceae, non foliaceae. *Corolla* longior. *Pappus* apice vix ampliatus, acutus.

A rigid shrublet up to 60 cm. high, the younger branches sparsely lanate, rather densely leafy right up to the inflorescence. *Leaves* sessile, fascicled, narrow-linear, mucronate, spirally twisted in the lower half, glabrous beneath, strongly involute*, the tomentose upper surface almost concealed: subtending leaf in each fascicle up to 7 mm. long, the remainder shorter. *Corymbs* dense, hemispherical, slightly compound, 1.5—2 cm. in diam., with 20—80 congested capitula. *Capitula* cylindrical, very shortly pedicellate, 6—7 mm. long, 1.6—2 mm. in diam., 5-flowered. Outer *involucral scales* spirally arranged in several ranks, woolly-matted in the lower part, acuminate, subspinous, reddish brown and at length spreading at the apex, the outermost very small, subulate, gradually lengthening and broadening inwards, their shape almost merging into the shape of the inner scales: inner scales free, sub-biseriate, spathulate, cuspidate, white, more or less rose-tipped, about 1.2 mm. wide towards the apex. *Pappus* bristles white, acute, serrulate, scarcely thickened at the tip. *Corolla* narrow-tubular, red in the upper half, 3 mm. long, the lobes narrowly ovate-deltoid.

Hab. Cape Province: Riversdale Div.; summit of Garcia's Pass, Salter 6771 (type in Bolus Herb.). Flowering July. *Co-type* has been sent to Kew.

This species belongs to the sub-section *Condensatae*, but has no very near affinity. The inner involucale scales are bi-seriate as in *M. quinqueflora* DC., but spathulate, cuspidate and pink-tinged towards the apex, not sharply acute. It is a much more robust and rigid shrublet with closely fascicled leaves and with many more capitula in each head.

* In this and the following species of *Metalasia* the leaves, owing to the twisting at the base, have the appearance of being *revolute* with the tomentose surface facing the ground, whereas morphologically they are *involute*, the tomentum being really on their upper surface.

The outermost involucral scales are sub-membranous, not foliaceous, the corolla longer and the pappus bristles acute and scarcely thickened at the apex.

Metalasia rhoderiodes Salter (Compositae-Senecioideae) § Eu-metalasia.

M. divergenti Don proxime accedit, sed ita differt :—*Ramuli* apicem versus plerumque roseo-tomentosi. *Capitula* numerosiora, lana rosea lenta inter se dense constricta. *Squamae* exteriores uniseriatae, in lana, nisi tamen ad apicem, dense circumstrictae : interiores 5—6, sub-uniseriatae, albae vel raro pallide roseo-tinctae, interdum squamis 1—2 parvis in intervallo additis.

A diffuse shrublet up to 40 cm. high, with densely woolly-tomentose branches, usually pink towards the tips of the branchlets. *Leaves* fascicled, lanceolate, linear-lanceolate or oblong, pungent-mucronate or sub-apiculate, usually more or less involute and spirally twisted, white-tomentose above, cobwebby beneath, the subtending leaf in each fascicle commonly 0·5—1 cm. long, the axillary much smaller and rarely glabrescent above. *Inflorescences* terminal, solitary or in shortly pedunculate pairs. *Floral bracts* linear-lanceolate or spatulate, acuminate, mucronate, lanate, the tips only free. *Capita* very compact, hemispherical, 1—1·5 cm. in diam. *Capitula* usually numerous, sessile, cuneate in outline, 4—4·5 mm. long, 5- or more rarely 3—4-flowered, bound together in the lower half with tough pink cottony wool. Outer *involucral scales* linear, acute, 1-seriate, deeply embedded in the wool, the subulate tips only free : intermediate scales 1—2, free, small, white, scarious, or wanting : inner scales usually 5—6, sub-uniseriate, linear, white or rarely tinged with pink, acute, about 0·7 mm. broad. *Pappus* bristles serrulate, white, very slightly thickened towards the acute apex. *Corolla* 3—3·5 mm. long, the tube tapering slightly to the base, 0·6—0·7 mm. broad at the apex, deep orange-red in the upper half ; lobes narrowly ovate-deltoid, very short.

Hab. Cape Province : Paarl Div. ; stream-side, Witte River Valley, *Esterhuysen* 8681 (*type* in Bolus Herb.) ; shale bank between Bailey's Peak and Pic Blanc, 3,500 ft., *Esterhuysen* 8524, *Stokoe* 8161 ; moist cliffs on S.E. slopes of Limietberg, 3,000 ft., *Esterhuysen* 1601 ; Wellington Sneeuwkop, 4,000—5,000 ft., *Esterhuysen* 13000 : Worcester Div. ; Slangkop Mts., Cossacks, *Esterhuysen* 8620 : Caledon Div. ; East side of Kogelberg, 2,000 ft., *Leighton* 877, *Compton* 16859, 16864 ; Palmiet River Valley, *Stokoe* 8730. Flowers Dec.—Apl.

This very distinct mountain species may be at once recognised by the pink cottony wool which binds the capitula together, the tomentum on the upper part of the branchlets being also frequently, though not in-

variably, pink. It is perhaps most nearly related to *M. divergens* Don, but differs in its far more numerous capitula and the uniseriate outer involucreal scales, which are closely embedded, except at the extreme tip, in the pink wool of the flowering head, and so break away from the capitulum on dissection.

Metalasia riparia Salter (Compositae-Senecioideae) § Eu-metalasia.

M. muricatae Less. affinis sed ita differt :—*Capitula* valde breviora, in dimidio inferiore lana pallide aureo-viridi dense constricta. *Subcapita* densissima, multiflora, glomerulis plerumque 4—10 itidem lanato-constrictis. *Corolla* valde brevior, inferne ampliata. *Squamae* involucreales exteriores scariosae, glabrae, liberae, 2-seriatae : interiores 1-seriatae, minus acutae.

A large robust erect shrub 1.5—2.5 m. high. *Branches* ascending, the younger woolly-tomentose, rather densely leafy almost to the apex, straightish, usually with few branchlets. *Leaves* fascicled, spirally twisted, involute, lanate beneath, white-tomentose above, mucronate : subtending leaf in each fascicle up to 1 cm. long, the remainder much smaller. *Flowers* white. *Inflorescence* corymbose, often 3—5 cm. in diam., usually with 10—15 pseudo-umbellate tomentose branches about 1.5—2 cm. long, each bearing one leaf-like bract, usually near the apex. *Subcapita* 10—15, 1—1.5 cm. in diam., compound, densely woolly-matted : glomerules 4—10, rarely less, shortly pedicellate, with an outer involucre of sub-foliaceous mucronate bracts matted together below. *Capitula* about 10 in each glomerule, subsessile, 3-flowered, about 4 mm. long, the outer involucreal scales 2-ranked, narrow-linear or subulate, scarious, sharply acute, white or pale straw-coloured, the inner 1-ranked, longer, linear, obtuse or subacute, white, 0.5—0.6 mm. broad, shortly overtopping the corolla. *Pappus* bristles white, serrulate, broadening and oblanceolate at the tip. *Corolla* tubular, yellow, about 2.7 mm. long, slightly swollen in the lower half, the lobes erect, deltoid, 0.3 mm. long. *Achene* (mature) oval, black, 1.5 mm. long, minutely papillose.

Hab. Cape Province : Caledon Div. ; streamside near Palmiet River mouth, Salter 5179 (*type* in Bolus Herb.) Levyns 5333 ; Platteberg and Paardeberg, near Palmiet River mouth, Stokoe 9075 : streamside, Onrust River Mt., Esterhuysen 4922. Flowers Nov.—Feb. *Co-types* were distributed to the British Museum and Kew.

Rather local and growing in dense thickets on stream sides. Its nearest affinity seems to be *M. muricata* Less., but it differs from all the many forms of that species as follows :—*Capitula* much shorter, closely bound together with pale greenish yellow wool in the lower half. *Subcapita* very dense, many flowered, the individual glomerules also bound

together with wool. *Corolla* much shorter, somewhat swollen in the lower half. Outer *involucral scales* scarious, glabrous, free, in 2 ranks : inner scales in 1 rank, less acute.

Metalasia xanthocephala Salter (Compositae-Senecioideae) § Eumetalasia.

M. aureae Don affinis sed ita differt :—*Corymbus* minor simpliciter subumbellatus, eramosus, apice planior. *Flores* saturatius flavi. *Capitula* latiora, basin versus minus attenuata, densius lanato-stricta. *Involucri* squamae exteriores apicem versus non carinatae, interiores non mucronulata. *Pappus* praecipue apicem versus minute plumosus. *Corolla* longior, in tubi faucibus non ampliata.

A rigid, widely branching shrub, 60—90 cm. high, the younger branches and branchlets thinly lanate. *Leaves* fascicled, linear, spirally twisted, sharply acute, subspinous, sparsely woolly or almost glabrous beneath, strongly involute, the white-woolly upper surface almost concealed : subtending leaf in each fascicle usually 0·6—1 cm. long, sometimes reflexed, much longer than the remainder. *Capitula* cylindrical, 7—8 mm. long, 1·5—2 mm. in diam., 5-flowered, shortly pedunculate, usually 8—24 in close terminal simple corymbs 0·8—1·3 cm. in diam. : peduncles shortly white-woolly, 1—3 mm. long. Outer *involucral scales* in several series, spirally imbricate, closely matted together with white tough cottony wool below, the outermost minute, progressively lengthening inwards, linear, smooth, acute, mucronate, pale yellowish brown, the 5 innermost scales equal, free, scarious narrowly linear-cuneate, obtuse or subtruncate at the apex, yellow-tipped, as long as the corolla, about 1·3 mm. broad at the apex. *Pappus* bristles slightly longer than the corolla, minutely plumose, particularly towards the apex, with a slightly widened yellow limb. *Corolla* about 4 mm. long, yellow, the tube tapering a little to the base : lobes ovate-deltoid, about 0·5 mm. long. *Achene* oval, 1·2 mm. long, minutely scabrid.

Hab. Cape Province : Malmesbury Div. ; Oude Post, between Malmesbury and Hopefield, *Salter* 4407 (*type* in Herb. Bolus) ; Kalabas Kraal, *Salter* 7179 ; Cape Div. ; flats 2 miles N.E. of Durbanville, *Pillans* 8529 ; Paarl Div. ; between Mulder's Vlei and Phesante Kraal, *Salter* 4393 ; low clay ridges $1\frac{1}{2}$ miles S.W. of Joostenberg (Hercules Pillar), *Pillans* 7618 ; flats north of Paarl, *Compton* 18121 ; Tulbagh Div. ; near Wolseley, *Salter* 7301. Flowers April—June. *Co-types* were distributed to the South African Museum, Cape Town, the British Museum and Kew.

An affinity of *M. aurea* Don, but differing in its smaller simple flat-topped unbranched corymb, deeper yellow flowers, rather broader

capitula, less attenuate below and more densely woolly-matted, the outer involucre scales not keeled on the upper part and the inner scales not mucronulate, the minutely plumose, rather than serrulate pappus bristles and the corolla is longer and not appreciably widened at the throat of the tube.

The description of *M. aurea* in the Flora Capensis, Vol. III, p. 270, was compiled from dried specimens. The flowers are actually lemon-yellow and the corolla is about 3 mm. long with the tube distinctly widened at the throat. Harvey states that "the heads (capitula) are rather few or very numerous," but they are, in fact, almost invariably very numerous. It seems possible that Drège's small specimen in Herb.

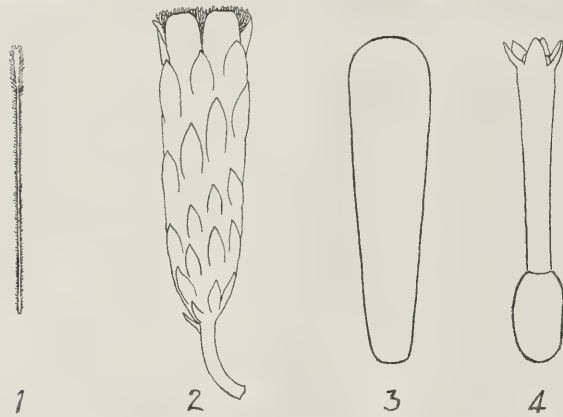


FIG. 5. *Metalasia xanthocephala*. 1. Pappus bristle $\times 10$. 2. Capitulum $\times 6$. 3. One of the five free involucre scales $\times 9$. 4. Corolla and achene $\times 9$. (Salter 4407.) Del. T. M. Salter.

Sond. from Berg River, marked *M. octoflora* DC., which Harvey says "in no respect differs from *M. aurea*" was, as its locality suggests, actually *M. xanthocephala* in which the heads are comparatively few-flowered. Harvey, having never seen the two species in the living state, may well have thought them the same and it is also significant that *M. aurea* is a species with a more easterly distribution.

It is, at any rate, inconceivable that De Candolle's description of *M. octoflora*—branches adpressedly pubescent, capitula ovate-cylindrical, 8-flowered—could possibly have been applied to the species described here. If he had ever dissected the capitulum of this plant he must surely have noticed that the pappus bristles were minutely plumose and not serrulate.